

# “Park Easy” (IOT Based Parking System)

Mr. Anup Sonawane<sup>1</sup>, Mr. Adhar Wani<sup>2</sup>, Mr. Dev Khairnar<sup>3</sup>,  
Mr. Nishant Ahire<sup>4</sup>, Mrs. Sanika Ghumare<sup>5</sup>  
HOD, Department of Information Technology<sup>1</sup>  
Students, Department of Information Technology<sup>2,3,4,5</sup>,  
Mahavir Polytechnic, Nashik, India

**Abstract:** *Parking management is a major challenge due to the increasing number of vehicles in cities. Traditional parking systems often lead to driver delays, inefficiency and frustration. To address these issues, this work proposes the development of an Internet of Things (IoT)-based system using infrared (IR) sensors for real-time monitoring and monitoring of parking lots on the proposed system uses IR sensors strategically placed in parking lots to detect the presence of vehicles. These sensors are connected to a central control unit equipped with IoT capabilities, enabling wireless communication and data exchange over the Internet. Through this network, real-time information about parking availability is transmitted via mobile applications or web platforms to an accessible user interface.*

**Keywords:** IoT (Internet of Things), parking management, IR sensors, real-time monitoring, wireless communication, data analytics, smart parking, urban parking, vehicle recognition, parking availability, mobile applications, web connectivity, scalability, efficiency, sustainability

## REFERENCES

- [1] Peresters, V., Beltran, R., & Tzovaras, D. A survey of internet of things (IoT) in smart parking.
- [2] L. D., D. B., Urs, S. R., & Garg, D. IoT-based intelligent parking systems: A review.
- [3] Asri, M., Hasan, M., & Amin, M. Design and implementation of IoT-based smart parking systems.
- [4] Bhandari, A., & Dhiman, Y. IoT-based smart parking system using LoRaWAN technology.
- [5] Khaton, K., Taherdoost, H., & Sajid, M. Enhanced IoT-based smart parking system using machine learning algorithms.
- [6] Kazmi, W., Gani, A., & Shiraz, M. Security and privacy issues in IoT-based smart parking systems: A review.
- [7] Gupta, A., Kumar, A., & Singh, G. Energy efficient IoT-based smart parking system using solar-powered sensors.
- [8] Singh, A., Singh, H., & Singh, R. Integration of blockchain technology in IoT-based smart parking systems.